Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-45 (canceled)

Claim 46 (new) A time division multiplexed traffic cell in a communications system,

comprising:

a header section comprising a first plurality of bits; and

a data section comprising a second plurality of bits following the first plurality of bits,

wherein the second plurality of bits comprises pulse code modulated samples from a digital

signal.

Claim 47 (new) The traffic cell of Claim 46, wherein said first plurality of bits includes

signaling bits from said digital signal.

Claim 48 (new) The traffic cell of Claim 47, wherein said signaling bits comprise channel

associated signaling bits.

Claim 49 (new) The traffic cell of Claim 46, wherein said first plurality of bits includes an

asynchronous transfer mode header.

Claim 50 (new) The traffic cell of Claim 49, wherein said asynchronous transfer mode header

comprises a virtual path identifier.

Claim 51 (new) The traffic cell of Claim 50, wherein said virtual path identifier has a value indicating that said time division multiplexed traffic cell is not an asynchronous transfer mode cell.

Claim 52 (new) The traffic cell of Claim 46, wherein said second plurality of bits comprises said pulse code modulated samples from respective ones of a plurality of digital signals.

Claim 53 (new) The traffic cell of Claim 52, wherein said first plurality of bits comprises signaling bits from said respective ones of the plurality of digital signals.

Claim 54 (new) A time division multiplexed traffic cell in a communications system, comprising:

      a data section including a first plurality of bits, wherein the first plurality of bits comprises pulse code modulated samples from respective ones of a plurality of digital signals.

Claim 55 (new) The traffic cell of Claim 54, wherein said data section comprising said first plurality of bits forms sets of bytes, wherein respective ones of the sets of bytes comprise said pulse code modulated samples from said respective ones of said plurality of digital signals.

Claim 56 (new) The traffic cell of Claim 54, further comprising a header section including a second plurality of bits preceding the first plurality of bits, wherein the second plurality of bits comprises respective signaling bits from respective ones of said plurality of digital signals.

Claim 57 (new) A time division multiplexed traffic cell in a communications system,

comprising:

a signaling section including a first plurality of bits, wherein the first plurality of bits

comprises signaling bits from a digital signal; and

a data section comprising a second plurality of bits following the first plurality of bits,

wherein the second plurality of bits comprises pulse code modulated samples from the digital

signal.

Claim 58 (new) The traffic cell of Claim 57, wherein said signaling bits comprise channel

associated signaling bits.

Claim 59 (new) The traffic cell of Claim 57, wherein said second plurality of bits comprises said

pulse code modulated samples from respective ones of a plurality of digital signals.

Claim 60 (new) A time division multiplexed traffic cell formatted as an asynchronous transfer

mode cell in a communications system, comprising:

a header section including 5 bytes; and

a data section including 48 bytes following the header section, wherein the 48 bytes

contain pulse code modulated samples from a digital signal.

Claim 61 (new) The traffic cell of Claim 60, wherein said header section includes an

asynchronous transfer mode header.

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Claim 62 (new) The traffic cell of Claim 61, wherein said asynchronous transfer mode header comprises a virtual path identifier.

Claim 63 (new) A method of packing time division multiplexed data into a time division   5 multiplexed traffic cell, comprising:

formatting the time division multiplexed traffic cell;

multiplexing pulse code modulated data from a digital signal into the time division multiplexed traffic cell; and

multiplexing signaling data from the digital signal into the time division multiplexed traffic cell.

Claim 64 (new) The method of Claim 63, wherein said multiplexing said pulse code modulated data comprises multiplexing said pulse code modulated data from respective ones of a plurality of digital signals into said time division multiplexed traffic cell.

Claim 65 (new) The method of Claim 63, further comprising inserting an asynchronous specific header into said time division multiplexed traffic cell.

Claim 66 (new) The method of Claim 65, wherein said inserting comprises inserting an asynchronous transfer mode specific header into said time division multiplexed traffic cell.

Claim 67 (new) The method of Claim 66, wherein said inserting comprises inserting a virtual path identifier into said time division multiplexed traffic cell.

Claim 68 (new) The method of Claim 63, further comprising determining, prior to said formatting, a cell format for said time division multiplexed traffic cell using a mapping control structure.

Claim 69 (new) The method of Claim 68, further comprising extracting, prior to multiplexing said pulse code modulated data, said pulse code modulated data from a location within a memory buffer, wherein the location is determined in said mapping control structure.

Claim 70 (new) The method of Claim 68, further comprising extracting, prior to multiplexing said signaling data, said signaling data from a location within a memory buffer, wherein the location is determined in said mapping control structure.

Claim 71 (new) The method of Claim 63, wherein said digital signal is a DS0 signal.

Claim 72 (new) A system for packing time division multiplexed data into a time division multiplexed traffic cell, comprising:

means for formatting the time division multiplexed traffic cell;

means for multiplexing pulse code modulated data from a digital signal into the time division multiplexed traffic cell; and

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means for multiplexing signaling data from the digital signal into the time division

multiplexed traffic cell.

Claim 73 (new) A method of packing time division multiplexed data into a time division   ⁊

multiplexed traffic cell, comprising:

    formatting the time division multiplexed traffic cell; and

    multiplexing pulse code modulated data from respective ones of a plurality of digital

signals into the time division multiplexed traffic cell.

Claim 74 (new) The method of Claim 73, further comprising multiplexing signaling data from

respective ones said plurality of digital signals.

Claim 75 (new) The method of Claim 74, wherein said multiplexing comprises multiplexing

said pulse code modulated data from respective ones of a plurality of DS0s into said time

division multiplexed traffic cell.

Claim 76 (new) The method of Claim 73, further comprising inserting an asynchronous specific

header into said time division multiplexed traffic cell.

Claim 77 (new) The method of Claim 76, wherein said inserting comprises inserting an

asynchronous transfer mode header into said time division multiplexed traffic cell.

Claim 78 (new) The method of Claim 76, wherein said inserting comprises inserting a virtual path identifier into said time division multiplexed traffic cell.

Claim 79 (new) A method of packing time division multiplexed data into a time division multiplexed traffic cell, comprising:

> formatting the time division multiplexed traffic cell;

> multiplexing pulse code modulated data from a digital signal into the time division multiplexed traffic cell; and

> inserting an asynchronous specific header into the time division multiplexed traffic cell.

Claim 80 (new) The method of Claim 79, wherein said inserting comprises inserting an asynchronous transfer mode specific header into said time division multiplexed traffic cell.

Claim 81 (new) The method of Claim 80, wherein said inserting comprises inserting a virtual path identifier into said time division multiplexed traffic cell.

Claim 82 (new) The method of Claim 79, wherein said multiplexing comprises multiplexing said pulse code modulated data from a DS0 into said time division multiplexed traffic cell.

Claim 83 (new) A time division multiplexed buffering method used in a digital communications terminal, comprising:

> receiving a digital signal containing pulse code modulated samples and signaling data from a communications line;

extracting the signaling data and the pulse code modulated samples from the digital

signal;

buffering the signaling data and the pulse code modulated samples;

formatting a time division multiplexed traffic cell that includes a signaling section and a

data section;

multiplexing the signaling data from the digital signal into the signaling section;

multiplexing the pulse code modulated samples from the digital signal into the data

section; and

placing the time division multiplexed traffic cell into a respective time slot of a digital

bus.

Claim 84 (new) The method of Claim 83, further comprising inserting, prior to said placing, an

asynchronous specific header within a header section of said time division multiplexed traffic

cell.

Claim 85 (new) The method of Claim 84, wherein said inserting comprises inserting an

asynchronous transfer mode specific header within said header section.

Claim 86 (new) The method of Claim 85, wherein said inserting comprises inserting a virtual

path identifier within said header section.

Claim 87 (new) The method of Claim 83, wherein said formatting comprises formatting a time division multiplexed traffic cell using a mapping control structure, wherein the mapping control structure indicates a cell format for respective time slots on said digital bus.

Claim 88 (new) The method of Claim 83, wherein said receiving comprises receiving a plurality of digital signals from the communications line, wherein each of the plurality of digital signals contains respective pulse code modulated samples and respective signaling data.

Claim 89 (new) The method of Claim 88, wherein said multiplexing said pulse code modulated samples comprises multiplexing said respective pulse code modulated samples from said plurality of digital signals into said data section.

Claim 90 (new) The method of Claim 88, wherein said multiplexing said signaling data comprises multiplexing said respective signaling data from said plurality of digital signals into said signaling section.

Claim 91 (new) The method of Claim 83, wherein said digital signal comprises a DS0.

Claim 92 (new) A time division multiplexed buffering method used in a digital communications terminal, comprising:

    receiving a plurality of digital signals from a communications line, wherein each of the plurality of digital signals contains respective pulse code modulated samples and respective signaling data;

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extracting the respective signaling data and the respective pulse code modulated samples

from each of the plurality of digital signals;

buffering the respective pulse code modulated samples;

formatting a time division multiplexed traffic cell that includes a data section;

multiplexing the respective pulse code modulated samples from each of the plurality of

digital signals into the data section; and

placing the time division multiplexed traffic cell into a respective time slot of a digital

bus.

Claim 93 (new) The method of Claim 92, further comprising:

buffering said respective signaling data; and

multiplexing said respective signaling data from each of said plurality of digital signals

into a signaling section.

Claim 94 (new) The method of Claim 92, further comprising inserting, prior to said placing, an

asynchronous specific header within a header section of said time division multiplexed traffic

cell.

Claim 95 (new) The method of Claim 94, wherein said inserting comprises inserting an

asynchronous transfer mode specific header within said header section.

Claim 96 (new) The method of Claim 95, wherein said inserting comprises inserting a virtual

path identifier within said header section.

Claim 97 (new) The method of Claim 92, wherein said plurality of digital signals comprises a

plurality of DS0s.

Claim 98 (new) A multi-modulation mode air interface frame format, comprising: \\

    an overhead portion including a plurality of overhead bursts; and

    a traffic portion including one or more time division multiplexed traffic cells, each of the

one or more time division multiplexed traffic cells including:

        a header section comprising a first plurality of bits, and

        a data section comprising a second plurality of bits following the first plurality of

bits, the second plurality of bits comprising pulse code modulated samples from a digital

signal.

Claim 99 (new) A super frame air interface format, comprising:

    a plurality of multi-modulation mode air interface frame formats, wherein each of the   \n

plurality of multi-modulation mode air interface frame formats comprises:

        an overhead portion including a first plurality of time slots and a plurality of

overhead bursts located within respective ones of the first plurality of time slots, and

        a traffic portion including a second plurality of time slots following the first

plurality of time slots and a plurality of traffic bursts located within one or more of the

second plurality of time slots, at least one of the traffic bursts including a time division

multiplexed traffic cell that includes:

a data section including a first plurality of bits that includes pulse code

modulated samples from respective ones of a plurality of digital signals.